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ABSTRACT

The edited transcript of a seminar presentation includes audience questions and statements by panel members David R. Witmer, Rodney T. Hartnett, and Robert G. Cope on the topic of the measurement and use of student-based outcomes in higher education. Among the topics discussed are the history of outcomes research, its problems, definitional differences, uniformity in methodology, specific institutional needs, and the student's individual goals. (MSE)

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PROCEEDINGS OF THE SEMINAR ON STUDENT BASED OUTCOMES OF HIGHER EDUCATION[1]

Witmer: Welcome to the Outcomes Seminar. I'm Dave Witmer[2], Rod Hartnett[3], is on my left, and Bob Cope[4] is on his left. In response to your requests, we've mailed out 71 sets of the three background documents.[5]

How many of you have not received our background materials? In the chance that you may be interested in them we are going to circulate a yellow tablet--if you would like to have us mail the background materials to you, give us your name and mailing address.

It is my duty at this time to warn you that we have a tape recorder and if you do not want to be recorded please write your questions to us.[6]

Those of you who have read the background materials know that we want to talk about the student embodied outcomes of higher education this morning. We are going to ignore the research outcomes and public service outcomes as well as those outcomes that have to do with the cultural and economic impact of colleges and universities on the communities within which they are located. We are going to try to divide the time among three subtopics: first, a review of the evidence, secondly, researching models and techniques, and finally, working hypotheses.

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1 Association of Institutional Research 1974 Forum, Statler-Hilton Hotel, Washington, D. C. 8 May 1974.

2 David R. Witmer, Assistant Chancellor, The University of Wisconsin, La Crosse, Wisconsin.

3 Rodney T. Hartnett, Research Psychologist, Developmental Research Division, Educational Testing Service, Princeton, New Jersey.

4 Robert G. Cope, Assistant Professor of Higher Education, College of Education, The University of Washington, Seattle, Washington.

5 David R. Witmer, "The Outcomes of Higher Education," Public Policy: Issues and Analysis Proceedings of the 14th Annual Forum ed. Robert G. Cope (Seattle: Association for Institutional Research, College of Education, The University of Washington, 1974).

Rodney T. Hartnett, "Problems with the Comparative Assessment of Student Outcomes," Outcome-Oriented Planning in Higher Education: An Approach or an Impossibility ed. Sidney S. Micek and William Ray Arney (Boulder: National Center for Higher Education Management Systems at Western Interstate Commission for Higher Education, 1973).

Robert G. Cope, "Diverse College Environments and the Effect on American Social Class Structure," Higher Education, Vol. 2 (1973), pages 259-264.

6 This transcript has been edited to reduce redundacy and improve readability. Many procedural matters ahve been omitted.

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Turning first to a review of the evidence, which major studies of outcomes have we overlooked? Which studies have we overstressed? (Let me say first off that I cited my work because I'm familiar with it, not because I think it is a major work.) Which results of the research on outcomes do you find most puzzling or disagreeable? Bob, I wonder whether you have any comments on the background paper that had to do with the summary of the literature.

Cope: I have some comments on your paper. It did summarize the literature, but I think it would be useful if you could briefly, in 10 words or fewer, summarize the 35 page paper for us.

Witmer: I'll try. First, our review of the literature showed that contrary to popular and widespread belief, the outcomes of higher education are not new topics of research. Second, there have been many surprises. Indeed early conclusions were overturned by subsequent research. We have, here, an active field, however not a really unified field of inquiry. Sociologists and economists, political scientists, psychologists, and educational psychologists have come at the question from quite different points of view. Third, the review of the literature also has disappointed many of us. We read the announced goals of colleges and universities, we look at the announced objectives of students, and we search largely in vain for evidence that the institutions meet the goals, and that the students actually attain the objectives that they set for themselves. Fourth, the outstanding and overwhelming exception to the general rule that the evidence fails to support the contention that higher education accomplishes its announced goals, is in vocational preparation. Higher education institutions promote the development of competencies in people, competencies to perform in ways which are valued by the society which supports the institutions. In those studies that have used control groups, studies which actually show the differential effects of higher education on people with similar socio-economic backgrounds and similar academic attitudes, a predominant conclusion is that it is the vocational outcome that can be demonstrated. Now that shouldn't really surprise us, because, after all, society founds institutions of higher education for purposes which, for the most part, have to do with the creation and development of competencies to do what society values. Fifth, the other outstanding result of reviewing the literature is the deep disappointment, at least for me, in the lack of understanding on the part of researchers concerning who traveled the path before them. Sixth, finally, on a more technical note, I found, as Alton Taylor[7] found, that many of the studies were methodologically indefensible. Not only was there little attention to what had been done by predecessors, but there were many major methodological faults.

Questioner: Time and time again, especially from banquet speakers, we have heard statements to the effect that a real problem is the poor communication that exists between institutional researchers and decision makers. Does your review of the literature yield implications concerning this relationship?

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[7] Alton L. Taylor, Research Methods for Conducting Follow-up Studies in Higher Education (Charlottesville: The University of Virginia, 1970.)

Witmer: I think that there are implications, yes. One of them is that the people who make the decisions for higher education are getting messages from the public which are not research based and are, unfortunately, largely ignored by institutional researchers. Institutional researchers, for the most part, are interested in the learning process and the characteristics of the student population. The really important decisions which impact on higher education, however, grow out of the soceity which founds, sustains, and puts institutions out of existence: these are largely ignored by institutional researchers. For example: in the last 3 or 4 years, one of the most important changes in American higher education resulted when activists in the streets told the board of control at City University of New York that they wanted open admissions. There was no institutional research and no faculty committee deliberation to tell the board of control that admissions ought to be open. Yet because of the irresistible social pressures, open admissions is being tried at CUNY. Consequently a very large percentage, maybe 76 percent now, of the high school graduates in New York City are going on to higher education as opposed to only 57 percent a few years ago.

Questioner: What about the use of control groups in measuring outcomes, especially where you contact students who have graduated to see what they are doing. Has it ever been done having control groups that did not go to colleges or universities.

Witmer: Yes, there have been many studies recently that have used control groups. Although there were some early studies that used control groups, you have identified the single greatest methodological failure. Feldman and Newcomb[8], in reviewing almost 1500 studies, cited only three, by Professor Plant[9] at San Jose State, that actually had control groups. Most of the people who have done what they call outcomes research have compared seniors with freshmen. Almost all of the recent economic sociological studies have had control groups--not control groups of the type that you find in laboratory research, but rather, control groups that are built inferentially through the use of social statistics.

Questioner: Do you think studies should be done without control groups? Is it possible?

Witmer: Studies without control groups are possible, but they leave the source, or cause of change very much in doubt. Is it the college experience, or just the common maturing process? Control groups are, I think, pretty essential.

Hartnett: I don't feel control groups are necessary for the kinds of things that most institutional researchers are trying to do. I think for someone who is trying to do research on how college affects students as contrasted with just simple maturation answers are not going to be forthcoming without control groups. However, most institutional researchers, it seems to me, are being asked by their academic deans, presidents, and, of course, people in the capitol, in the case of public institutions, to provide evidence that their institution is having some kind of positive effect on their

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[8] Kenneth A. Feldman and Theodore M. Newcomb, The Impact of College on Students (San Francisco: Jossey-Bass, 1969), Vol. 1:xii and 474 pages, Vol. 2:iv and 171 pages.

[9] William T. Plant, Biology Department, San Jose State College, California.

students. That question doesn't include consideration of, "How do its students compare to those who didn't go to college? All they want to know is, "Are we doing a good job at Campus X?" "Are our students graduating with competencies that achieve some kind of standard that is acceptable for performance in their given vocation?" That is not necessarily a college effect question, that is simply an outcomes question. That is a long-winded way of saying I don't necessarily think that control groups are really essential for the kinds of things that institutional researchers are asked to do.

Questioner: In the light of your paper, would it be correct to say that the earlier motivation for the study of outcomes was a very different motivation from what it is becoming today. I have the impression that much which was done earlier was done largely to answer the question, "Why do people go to college?" and today, in regard to what Mr. Hartnett was just saying, it is not so much trying to answer that question, but more to find pragmatic reasons for gaining support for higher education and to satisfy the legislators as to why we want money to run colleges.

Witmer: That's a good observation and one with which I can largely agree. The very earliest study that I found asked the questions, "Should we have colleges and universities, and do they do what they were founded to do?" Those questions have continued down through the years, although today we are faced with a different version: "Which of the institutions ought to continue in existence?" or, as Mr. Muirhead[10] put it this morning, "Which of the institutions should go out of business?" We have moved largely from defending college education to defending individual institutions.

Cope: One of the statements in the question is a good one and I think he is quite right. I am still interested in the earlier kind of college effects research. It is interesting and fascinating, but addresses different questions than those facing most of the people here.

Questioner: You suggested that the CUNY decisions were made not from research but from social pressure. Is there any attempt being made to do research on the results that are perhaps now measurable?

Witmer: Yes, there is, but I'm not thoroughly familiar with the research that's being done. There is the sad report that an advocacy situation has developed. The faculty have a researcher who sees things one way, and the administration has institutional researchers who see the matter the other way. They are in debate and the result is not in yet. A group like this group, and institutional studies specialists across the country, are going to become referees. We're going to be asked whether the research was well done.

Questioner: When researching value added, I'm getting the impression that one must control for input when looking at output and that in making comparisons between different colleges one must know what the input characteristics were. However, it does not mean that an increase in an achievement test score of 10 points means the same from all along the scale.

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[10] Peter Muirhead, Deputy Commissioner for Postsecondary Education, U. S. Office of Education.

Witmer: Through institutions of higher education society makes investments in students--in the embodiment of competencies which leads to the accomplishment of work in the world which has value and is rewarded. Those who enter college and graduate do things like neurosurgery, building bridges, institutional research, and things like that. Those who do not attend college do other things. Students entering institutions of higher education may be compared with groups who do not. There is a difference in the value of their efforts--a value which was added through the college experience. Cognitive ability and skill at graduation time versus academic aptitude on entering as a freshman is related.

Hartnett: Would it make sense at this time for me to briefly indicate what I said in the background paper? The value added notion is one imbedded in a series of other considerations, all of which are methodological or procedural. You can't consider one without considering the others.

Witmer: We're at the end of the first half hour and I think it is time to move on. I won't put you under the constraint of 10 words, nor even three sentences, but if you can keep it to under three minutes it will keep the process moving.

Hartnett: First, let me say, we're sorry to see so many people here this morning because we really hoped to interact with a small group in a seminar sort of way. I started my paper by making a distinction between assessing outcomes and examining college effects and that's related to one of the questions we talked about earlier. Those are related questions but nevertheless very different in a conceptually important way. You can assess outcomes in a way that is much easier than assessing college effects. You assess outcomes, and we're talking now about student outcomes, by simply measuring, by whatever ways are available to you, the performance of your students at the time of graduation. Those in effect are your outcomes. As I hinted earlier, if we are concerned about the standing of "X" institution's graduates and their preparedness, say, for being physicians, engineers, or nurses, or whatever, the question is, "How do they stand at the time they graduate, and are they ready to do that job?" That is the question of outcomes. What most people are asking today, however, is a somewhat different and thornier question. They're saying, "What kinds of effects are colleges having on students?" The question now that is being faced by many of you, and by many legislators and people in boards of higher education, is, "We've got scarce resources; we want to allocate those scarce resources in ways that are most objective and reasonable; how do we determine which institutions (or in some cases within institutions, which programs or departments) are doing the best job?" Now that's a slightly different question, you see, and that gets into educational effects. I tried to indicate that there are basically (and this is oversimplified) about six steps to this question of trying to determine educational effects. You, first of all, try to assess educational goals. Second, you try to measure students at the time they enter college by means of measures that seem to be appropriate to those goals. Third, you assess students at the time they leave college on the basis of the same measures. Fourth, you use some kind of statistical technique to match up the inputs and outcomes, and that is the measurement of value added step that the gentleman commented on earlier. Fifth, you

try to determine how much gain score was added by an institution, and in doing that you also try to attribute cause factors, and then many people compare these value added indices across institutions. Sixth, you make educational decisions on the basis of those comparative value added indices. That, admittedly, is oversimplified, but I think in no serious way does harm to the procedures advocated by many people in measuring differential college effects. In my paper I tried to outline the very difficult problems at each of those six steps. Many people who advocate the use of that six-step model don't really understand the serious complexities involved. We treat each of those steps as separate problems such as what measures are available and what are the properties of those measures.

Witmer: The question of who establishes the goal is one that you comment on, both explicitly and implicitly. You are unwarrantedly gentle with the institutions in suggesting that outsiders ought not to pass judgement on the process nor the goals. Isn't that unavoidable?

Hartnett: I said the selection of educational criteria ought not be imposed on educators by any individual group--that is different. External people ought to have a very important role but there is a difference between their being involved in an important way and their imposing goals on faculty members.

Witmer: In three different places you say that the outcomes just don't lend themselves to quantification. Well, how do you know there are outcomes if you can't measure them?

Hartnett: Well, I obviously do think that a good many outcomes can be assessed and quantified. A good deal of my professional life, in fact, is devoted to the belief that you can assess the outcomes of higher education. In the paper, however, I said I'm sympathetic to the position taken by many faculty members--who, by the way, are usually regarded as recalcitrant, conservative, uncooperative foot-draggers--that there are some outcomes that cannot be assessed. In attempting to do so, educational researchers, and institutional researchers, often impose on faculty members the view that only the things that are measurable are important. That doesn't make sense to me at all. We do need to recognize that there is legitimacy to the oft heard faculty position that some outcomes of certain humanities experiences probably can't be measured. If nothing else we ought to be aware of this and to note, and to indicate, and to convince those people that what we do measure then can be regarded only as partial indicators of outcomes.

Witmer: We should be cautious in commenting on the existence of unmeasurable outcomes.

On page 23 you say that the comparative process may be, or is almost certain to be, fruitless. Aren't you devoting yourself to the comparative process?

Hartnett: No, there is a difference between assessing outcomes and comparing those assessed outcomes between and among institutions that have

different kinds of emphases, goals, and purposes. One of the problems of this business is there aren't many people who are concerned about assessing educational effects. Most people are reasonable enough to feel that we should be interested in knowing whether or not colleges are having an effect, and if we're not doing a good job how can we improve. The question many faculty members are concerned about, however, is the business of somebody making a measure of whether or not they're doing a good job and then comparing it with measures of various other institutional programs, many of which have different goals and purposes. They are also concerned about the making of uniform decisions based on measures which might be inappropriate. There is an important difference between measuring outcomes, which I am obviously very much in favor of, and the complexity you get into when you start talking about the comparative assessment of outcomes. There are dilemmas here.

Witmer: I can only report, quite simply, that whether we like it or not the students do make judgments concerning the institutions; and the public directly, and through their legislators, does make judgments. That is inescapable. You also suggest that maybe we should ask the students, and I think you say specifically, the alumni, what they value about their college experience. One of the things that we learned by reviewing the literature is that almost everybody is rather happy with the college that he graduated from. Graduates become advocates. It is rather fruitless therefore to ask the broad questions again and again and again, but we can ask, more specifically, "What about your college experience do you find most helpful and most valuable, and what least?"

Hartnett: I think that has merit.

Cope: Apparently you are in agreement that there is a place for external interest in both goal setting and the operation of the institutions. Do you have any suggestions as to how this involvement can be done appropriately?

Witmer: Yes, I think we need to pay attention to what people are telling us: first-off in the marketplace by their actions. I continue to be struck by the great difference between what the verbal advisors in society say and what most people do. The bank president gives a speech about hiring liberal arts graduates. He goes on to assure you that he doesn't define liberal education as education that liberates one from past prejudices as Whitehead[11] suggested but that he is talking about plain, everyday, on-the-street liberal education: the arts and humanities, not the sciences, and surely not technology. But then, that very afternoon, he'll go back to his office and talk to his personnel officer and say, "Can't we get better accountants into our firm?" The public speech says one thing and the private action something else. I think the first way to find out what the society that supports institutions of higher education really believes is to pay less attention to what people say and more to what they do, particularly in the economic marketplace where

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11 Alfred North Whitehead. "Universities and Their Function," Atlantic Monthly, Vol. 141, May 1928, p. 638; The Aims of Education (New York: MacMillan 1929); "Harvard: The Future," Atlantic Monthly, Vol. 158, September 1936, p. 267+; and Essays in Science and Philosophy (New York: Philosophical Library, 1947).

millions of decisions are made everyday by people who hardly know that Congress and Legislatures exist. Secondly, I think we need to pay careful attention to the people like John Brademas[12] and Quie[13] and other politicians who think carefully and reflectively about higher education, what it ought to be doing, and what their constituency thinks it ought to be doing. So I think those are the two most important. Feedback through alumni associations is decidedly far down the list of sources of useful information. The economic and political systems convey important messages.

Hartnett: Now, there has been, and you may be familiar with it, an effort in at least one state, the state of California, to involve people from various constituent groups throughout the state in a study of the goals of the California State System of Higher Education. And that was an effort to get faculty people together with people from the Legislature, or even people from the community and, of course, students, alumni, etc. And, of course, many of those people say things quite a bit differently. I think that involving people from the community or from various, appropriate public and private organizations more often on campus committees of one kind or another, is probably a good procedure. That, I admit, would take some re-education of the faculty: I defended them earlier and I criticize them now. I think, you know, the old notion that the faculty members have that the faculty is the college is obviously unacceptable and they have to learn to adapt to a new responsibility to their constituent groups.

Cope: I assume there are no panaceas for good involvement.

Hartnett: I'm opposed to uniform procedures, frankly. I tend to think in this one, too, there probably should be different spokesmen and different arrangements on each campus. These obviously have to differ for public and private institutions. The community colleges' arrangements naturally have to be much different from those for state universities, and so on.

Questioner: How do you set goals? The American Association of State Colleges and Universities discontinued their project for long-range planning. They advocate that you use some goals inventories and the Delphi technique so that the banker who is very politically influential in the area does not feel hurt when his goals are not accepted by the institution. This is one way to deal with people; you can get their impartial input and make a simple decision. Now you have, as was stated in your research of the literature, easily measurable goals, but then you also have goals such as to liberally educate people who are also occupationally trained. I think that is really what the banker wants. He doesn't want an accountant to be a great accountant who, the minute he steps out of his box, cannot communicate. Progress toward some of the goals is easily quantifiable but in other cases people are just mouthing phrases that even they don't understand. The huge follow-up studies, like for example the one that was completed in California for the Junior Colleges, need to be done on an interinstitutional basis.

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[12] John Brademas, Member, U.S. House of Representatives (D-Indiana).

[13] Albert H. Quie, Member, U.S. House of Representatives (R-Minnesota).

Witmer: You've made some good points.

Questioner: How do you make interinstitutional comparisons in studies of progress toward broad social goals?

Witmer: We compare rates of return, placement records, and things like that.

Questioner: No, I understand how you do economic studies, but how do you measure development of technology and societal development?

Witmer: To really communicate in interinstitutional studies we will have to get considerably more operational than to use the term "societal development."

Questioner: Maybe administrators in higher education should just defend the institutions rather than looking for the answers to complex questions. Maybe you should just point out to Quie, for example, that yes, our institution has increased the undergraduate tests by 2.6 . . . T scores.

Commentator: That wouldn't be very acceptable to people who take social responsibilities seriously. Institutions, as the students say, must be relevant and responsive.

Witmer: Yes, higher education institutions need to be responsive to society, but they also should advocate changes in society. I wouldn't give Quie nor other legislators a chance to talk very long about the kinds of things we're talking about this morning; instead I'd try to get out in front and say, "This is what society ought to be, and these professors and these institutions have a direction-defining and leadership role in moving society forward."

Questioner: Mine is a methodological question, directed mainly to Mr. Hartnett, having to do with the measurement of liberal arts outcomes. To what extent do you think the problem lies in a kind of mismatch between the humanists on one side and the social scientist and institutional researchers on the other in the terms of the way they think about problems? It seems most of us like to measure outcomes with relatively simple paper and pencil tests. Now, is there any evidence that institutional researchers who want to think systematically about this problem (and I think in most of my experiences humanists don't) get together with humanists, try to get the goals specified in terms that humanists understand, and then invent different kinds of techniques to try to assess this--maybe through indepth interviews of a very small number of people rather than widespread use of pencil and paper tests with various kinds of statistics which tend to put off the very people we want to get involved in the process?

Hartnett: That is more of a statement than a question--the statement I wholeheartedly agree with. I think we need it desperately.

Questioner: The question is, "Do you see any indication?"

Hartnett: No, I see good possibilities, though. This may be naïveté, but my position again is we need to see that for any kind of evaluation, part of the problem is methodological and part of it is socio-political. If we

develop the best methodology in the world, if we develop a whole variety of outcome measures--even some of the kinds that you have indicated, less paper-pencil, more interview, and so on--if we had all the best in the world, we still would not be able to satisfactorily assess differential college effects or departmental effects, because there we're smack up against the political problem and, as someone suggested earlier with a question, the tremendous communications problem. I think that we're never going to get anywhere unless we start working with groups of faculty members within academic programs. By we I mean the people listed in the assessment programs working with the academicians and together trying to reach agreement about reasonable outcome measures and their interpretation. In one part of your statement you suggested that maybe the problem was people in the humanities; I think it is obviously more of a problem in the humanities, but even social scientists have a tendency to measure things simply by paper-pencil tests and are giving us all kinds of problems. Most measures assessing outcomes in higher education have been developed by agencies such as Educational Testing Service or American College Testing, or SRA, or whatever, and because they are designed by these organizations they are naturally designed to be broadly useful by a wide variety of institutions. They are, by definition, less useful to meet the specific goals of specific within-institution departments. I think we have got to move away from the notion of designing these pre-packaged, "everybody-use-it" kind of measures and move toward more individually "put-together-to-suit-our-needs" kinds of measures. Now, to say that is easy, to do it is very expensive and very complicated and very time consuming, but, I think, unless we do that, we're really interested in spinning wheels. That also raises a lot of other kinds of questions about what kinds of measures and what kinds of traits are missing. Your point is excellent, I agree.

Questioner: I wonder if part of the problem isn't due to the types of reports that are generated on this type of research that lead to the problem you are describing. For example, let me contrast briefly what might be a typical educational research survey of attitudes where you have a questionnaire and 38%, say, strongly agree, and so on, and then the summary of the report simply describes those statistics and contrasts them with the things that we read in the newspaper. You even read statements like: "Another prevalent idea is illustrated by Joan Low of Rockford, Illinois, who says thus and so." When I read that kind of stuff, I wonder if they're talking about 50%, or 65%, or 75%, or what the significance of the difference is. The point I'm making is that sometimes we use the standardized measures supplemented with some pre-response or open-ended type of questions, and then publish the report for people in the humanities by describing the results, not by citing so many numbers and printing the instrument in the appendix and that sort of thing, but by simply turning it over to a journalist or by at least trying to write like a journalist. Of course, this leads to other trouble. I tried to write like a journalist, found I couldn't, so I gave the project to our PR people. They really took off on it, and the report was pretty wild and largely unrelated to the actual results. I think the communications problems may actually be increased by using journalists.

Witmer: If you include your name, your institution, and a date, those of us who read the journalistic report will be able to contact you to get the scholarly version. If we can communicate like journalists, and still not abandon our scholarly friends, we've cut into the communications problem a bit.

Questioner: Earlier someone commented about the assessment of goals by members of the community in California. It is very easy to use forms and questionnaires without really evaluating the quality of the questions and answers. In California we found (1) the group that sponsored that questionnaire forced into it certain political questions which confused people who attempted to respond; (2) we found that the majority of the contacted members of the community were not interested in even attempting to answer those goals questionnaires; and (3) it was interesting to note there were great contradictions among the answers to different questions on the same form. I don't think these shortcomings were ever explicitly brought out in the final reports.

Witmer: The experience of the Kellett Commission in Wisconsin[14] was somewhat similar. The people, by and large, didn't know that there were two systems of higher education in the state, and they didn't know that the state provided most of the financial support for higher education in Wisconsin. The people who designed our questionnaire, or opinionnaire, however, did not to my knowledge incorporate a particular political bent, and the results were reported in a straightforward way.

Questioner: In California, it was almost impossible for most people to decide what their community was. For instance, although there were state institutions located nearby, people only talked about the small town in which they lived. On the other hand, the state institutions couldn't decide whether the community they served included more or less than the State of California, and if less, how much less. They never were able to agree on how far afield to go to ask questions of "their community."

Questioner: I wonder if we jeopardize the potential for success in measuring outcomes by starting from what may be an unwarranted assumption, mainly that the people involved are ready to participate in determining objectives. It seems to me unless we have very thoroughly defined objectives we are not going to be able to do very much by way of measuring outcomes, but very often the efforts to define objectives are quite shoddy, narrow in terms of the disciplines, and often oblivious of potential learning opportunities. There is still a great deal to be learned and to be done to rectify the objective determining process.

Hartnett: Well, basically I agree. I see problems in trying to get too specific in defining objectives. There is conflict between measuring with precise triviality and measuring with ambiguity! Too often those things we can measure precisely are trivial, and many of the very important things we pursue ambiguously. But that doesn't mean we

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[14] William R. Kellett and other members of the Governor's (Wisconsin) (Knowles) Commission on Education, A Forward Look, Final Report and Preliminary Report (Madison: The Commission, 1970), 120 pages and 201 pages.

shouldn't try. Stating objectives is obviously the first step, although some of the global attempts to assess institutional goals are probably not going to be very helpful to those who are interested in assessing outcomes within colleges. Mainly goals inventories are useful as a way to begin getting faculty people, and maybe people in the related community, thinking and talking and interacting about where the college should be going. When it comes down to trying to match objectives with something you're eventually going to measure in the context of this outcomes model, you do have to be specific. The measurers have to sit down with the faculty people and hammer out some agreement regarding educational objectives and measures of those objectives. These might be test items, these might be interview questions, or whatever.

Witmer: We have a very gentlemanly member of the panel who doesn't interrupt, who thinks carefully and reflectively, and I'd like to give him a chance to comment on anything he chooses, and his paper in particular.

Cope: We have discussed these papers at some length, now let me comment very briefly on where I am--where I'm coming from in this discussion.

The paper I dealt with assumed--and you, of course, recognize the importance of goals--that society stresses human development and equality. These are essentially the goals of our higher education system. Very briefly, the paper, which you can critique at your leisure, is somewhat pessimistic, saying that our institutions of higher education contribute very little to human development and actually work against equality. So much for the paper. I think I'm recognizing two areas of interest among you. Many of you are interested in the implications for specific institutions; others of you are interested in the effects of the outcomes on society. There is something of a dichotomy in the recommendations that I would make to each of those two groups. Those of you who are interested in the advancement of an institution should find out what its accomplishments have been. I suggest you can use studies that focus upon student earnings, job satisfaction, competencies resulting from scholarly effort, fulfillment of manpower needs, the mobility of graduates, and so forth. All of this is highly valuable as your institution demonstrates its ability to governing boards, legislatures, citizens, and students. You'll get relatively hard data. The other area of research that you might engage in as directors of institutional research is the soft data area: the impact of your institution on attitudes, values, intellectual orientations, self-confidence, identity formation, the sense of political liberalism or conservatism, and the cultural interests of your students. If you want to advance your institution you should go to the people who provide resources to your institution--go to the trustees and legislators and say, "Now look at the wonderful job we are doing." Then you can itemize it. The trustees and legislators, however, are usually not interested in the soft data--in identity formation, or the degree to which people have found themselves at the end of their college careers.

On the other hand, some of you, a small number, I suspect, are interested in the outcomes of higher educational institutions because they have a bearing on the nature of our society. Here too, you have two areas to

look at. You have the same dichotomy. You can look at institutional studies, persistence rates, earnings of graduates, and you can look at manpower fulfillment as a result of having this enormous higher education system. On the other hand, you can also look at research dealing with the attitudes and values that graduates take with them as a result of their college experience. My feeling is that the most important outcomes are not job related--the reading skills, writing skills, math skills and knowledge outcomes are not nearly as important as the kind of outcomes such as personality traits, the sense that people have of a socio-economic class identification, their ability to accept orders from above, to feel comfortable in giving orders below, their sense of equality or subordination within a socio-economic structure, their ability to separate themselves from others in a social class hierarchy. I think that the effect of our institutions on these variables is the most important outcome we can examine if our interest is national policy. On the other hand, most of you who identify with a specific institution really want to look at the hard data--the earnings, mobility, and occupation.

Witmer: The changes in personality and understanding which you consider most important seem to me to be outcomes of the maturing process which college experience may retard. Many of us are interested in seeing more good research on this subject.

Lenning[15]: Some of you may have noticed on the ERIC table--a report that just came out called The "Benefits Crisis" in Higher Education[16] in which I reviewed the benefits literature published in 1936 and since. In most cases people trying to formulate policy assume the goals--and they are all very broad goals. The main point of this report, which is aimed toward administrators, is that most institutions really haven't tried to delineate their specific purposes. The only hope for many of our private institutions is to do so, to communicate successfully, and to gain support from people who agree with those goals and purposes.

Questioner: I seem to not hear very much about the student goals. Outcomes could be assessed in terms of what the student set out for. She may have gone there to get married, and he may have gone there to have a good time and to play football. That may not be very valuable to society as a whole, but it may be pretty important to the students. A student who goes to an agricultural school to get a humanities education may get it or he may not. We have a lot of information about incidental learning and the effectiveness of incidental learning as compared to directly motivated learning. Quite often institutions and particularly departments fail to publicize expected outcomes. It's beyond the condescension of some faculty members to come down and state what they think students might get out of their courses because, if they really told the truth, students probably wouldn't take their courses. Realistic knowledge of student expectations and institutional expectations is a very important area for research work, and one that has been neglected far too long.

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15 Oscar T. Lenning, Assistant Director of Research Services, American College Testing Program, Iowa City, Iowa.

16 Oscar T. Lenning, The "Benefits Crisis" in Higher Education (Washington: American Association for Higher Education, 1974), 62 pages.

Witmer: There are many, many studies that spring from the philosophy of higher education which maintains that the institutions exist for the students. That happens, incidentally, to be a philosophy with which I don't agree. I don't believe institutions exist for the faculty either (I think institutions are the faculty), but there is some scholarly work which takes this position. Interestingly, the institutions which are founded and supported by society to carry out important social purposes are, by and large, also meeting the expectations and goals that students verbalize--or so the literature indicates.

Questioner: I really don't agree with the contention that legislators are not interested in such soft measures as identity formation. I think, if the measures are valid, and we communicate accurately, we'll find legislators interested in much more than the number of graduates and student credits.

Hartnett: What do we want to measure? What kind of measures are institutional researchers, for example, most interested in when researching student outcomes? The measures that are most available to you are measures of academic achievement, which may or may not be the most appropriate measures to serve what you are trying to get at. On the other hand there has been a good deal of discussion about the affective outcomes of higher education, but, as many of you who have tried to get into this area of assessment know, there are not a whole lot of satisfactory measures available. Are they needed? I don't know. Should we give some attention to the development of measures of affective and non-cognitive outcomes?

Witmer: They deserve attention because people keep asking questions about them. I can't claim that we have evidence that affective outcomes exist, but as long as people keep asking questions about them we must pursue them. Somebody out there may be able to actually demonstrate that there are affective outcomes, but I'm reminded that John Locke pointed out long ago that we never really prove that things exist, that we only prove that other things don't exist. All right then, do it that way. Prove that there are no affective outcomes; it is a worthy topic.

Questioner: In our research at CUNY students told us that among the things they value most are an understanding of public values, interpersonal skills, personal openness to other people, and understanding other people.

Hartnett: Who values that most, the students?

Questioner: Yes, students. We asked what they valued as outcomes. We also are asking students what they value before they begin in college. Also we think it is important to have some comments from dropouts. We assumed, when we started, that the ideal student who goes from freshman to senior in four years realizes the greatest change in values; but we're finding out that some students derive more value change in one year than others do in four.

Witmer: As you continue your research, try to identify comparison groups of people, with the same backgrounds and aptitudes, who go out to live in the mountains in communes, and comparison groups who go directly to work, or enter the army. That is very, very difficult, but if you can do it, you may make very important contributions to our understandings of the college experience, the maturing process and value change.

Questioner: In self-assessment and in identifying the goals and objectives of the institution, many schools invited students onto the governing board. That turned out to be a sort of backward thing. We really need to concentrate on going back and patiently, as we would to a child describe what the institution is all about--what the basic criteria are.

Witmer: That is a good point. The criteria, I think, are human values. The things that human beings value and act on are important, rather than the statements of commissions, politicians, etc.

Questioner: How do you compare the outcomes of the traditional process with those of the experimental or new process? Someone in the legislature asks whether the change in process makes the results better, worse, or any different.

Hartnett: The question of comparability is a difficult one even among traditional institutions and traditional academic programs, particularly if they claim they have different goals and purposes. I don't really know how to resolve your problem. I don't think it makes any sense at all for somebody at the state level, in the case of public institutions, to prescribe an outcome measure that is going to be applied to all institutions or all academic programs of all institutions throughout the state. I think the outcomes measures must meet the needs and goals of the individual departments but I admit that doing so poses the question of how to provide interested people with the common measures across institutions. One of the alternatives is to require common measures of all disciplines within a state system, but ask each institution to specify which of the measures meets its own criteria and goals. Many institutions have used what are called undergraduate program achievement tests as measures of outcomes of higher education; these are field tests and one of the fields is psychology. One procedure might be to require all graduating seniors of all psychology departments at all institutions in the state to take that examination but to ask each department within the state system to indicate what their emphases and goals really are within the field of psychology, recognizing that some may emphasize motivation perception, and other perhaps clinical and social, and others measurements, and so on, so that while you have a common measure you at the same time obtain attention to diverse emphases as set forth by the institution. That way it gives you, or should give those in a decision making position, a better interpretive handle.

Cope: My feeling is that the difficulties in controlling for inputs and defining the outputs are not worth the effort for most of you when your basic concern is an individual institution. It might even not be

Worthwhile if your perspective is that of the state board. Again, you may need to spend more time on those hard data items, demonstrate what your institution is doing for its community, whether local, regional, or state. I say that and want you to understand where I am. My heart is saying that the important things are the attitudinal--the affective outcomes. However, for the benefit of your institution you take the favorable hard data outcomes and tell your development office, public relations people, and the legislature about them; and when you find that your institution is not effective in accomplishing a goal or purpose you feed that back to your faculty and your administration. It is important to decide what your time frame is, when trying to measure outcomes.

Cope: Follow-up studies should begin within at least two years of graduation and should track some of your graduates 5 and 10 years after.

Witmer: Most outcome studies are based on data collected just before graduation, and a very few much, much later. In the long run we're all dead, and even as early as 70 we begin to come back together again. A time frame can be too long to be useful.

Lenning: Lately, people in this society--among the legislators--have been feeling concerned that non-college trained people are getting better paying jobs, and that college doesn't even guarantee a job any more.

Witmer: Well, college graduation never did guarantee a job, but the impression that non-college people are getting better jobs is a false impression, as is the impression that college graduates can't get jobs. The lowest current unemployment rates are for people who have Ph.Ds, the second lowest is for people who have master's degrees, the third lowest is for people who have bachelor's degrees--and those rates are all clustered around 5%. The unemployment rate is about 7% for people with high school diplomas and about 13% for people who don't finish high school.[16a] Now turning to another criteria, we note that rates of return on investments in schooling are very high for elementary school and high for high school, somewhat lower for college, and a great deal lower for master's degrees, and very, very low for the Ph.D. On the other hand, the lifetime earnings of college graduates are higher than those of high school graduates which are much higher than those for elementary school graduates. We seem to be caught in something like a 20-year cycle of disparagement of higher education. The rates of return to investment in college education have fluctuated from as low as 8% to as high as 14 percent since the turn of the century. Some people see this as narrow fluctuation, others think it is frightfully unstable. During the period just after World War II, the rates were very high--13 to 14%. "This favorable outlook was not expected to continue, however, as evidenced by the conclusions of Litsching and Harris, both writing in the late 1940's.[17]

16a Julius Shiskin and others, Office of Management and Budget, Executive Office of the President, Social Indicators, 1973 (Washington: U.S. Government Printing Office, 1973), page 137.

17 Walter Kotsching, Slaves Need No Leaders (London: Oxford University Press, 1943); Seymour Harris, The Market for College Graduates (Cambridge: Harvard University Press, 1949).

They variously hypothesized that as the nation approached universal higher education, (a) college graduates would be in oversupply relative to the occupations they would seek to enter, with fewer and fewer uneducated people to do the less glamorous work; (b) their earnings of college graduates would fall relative to those of less-educated groups; (c) widespread unemployment of college graduates would result because of the non-transferability of skills; (d) idle, frustrated intellectuals would foment social revolution; (e) larger proportions of unqualified students would be enrolled in colleges, and as a consequence, (f) the social benefits to investing in college training would decline. Neither author supported all of these hypotheses, and some of the hypotheses were mutually exclusive, but each hypotheses had adherents. The following quotation from Cohn in the late 1940s captures the predominant tone: "There will soon be more college graduates than there are jobs for them in their chosen fields. By 1950, for example, close to 50,000 engineers will be graduates as against an annual replacement need of only 7,000. Lawyers will become a surplus commodity with few takers, yet they continue to flock to college although many members of the class of 1948 are still jobless. There is still room for some chemists and psychologists but only if they have a graduate degree. There are already too many personnel men. The fields of physical education, social science, and English are crowded..."[18] Did any of these dire predictions materialize? By 1950, college enrollments had almost doubled...rate of return held constant...the market was able to assimilate the newly educated with comparative ease."[19] Will the dire predictions of 1974 materialize? I doubt it.

Questioner: Do you remember two years ago?

Witmer: Yes, I remember two years ago. Yes, we have had some rough spots. There have been individual graduates who have had a hard time finding the particular job that they wanted in the particular location that they wanted and the Boeing layoff publicity has had unwarranted, damaging effects on engineering enrollments. The rates of return, however, have held at high levels and unemployment patterns have been rather stable. Some time ago I predicted that the rate of return on investments in high school education is going to fall relative to the rate of return on investments in college. On completion of the transition to universal higher education, say by the year 2000, the college degree will be required at the threshold to good employment as the high school diploma is now. Unemployment rates for high school graduates will then soar toward those for high school dropouts.[20]

Questioner: The most important subjects for us to examine, if we are loyal to our institutions, are the outcomes of our institutions. This focus is forced upon us; many of our institutions are facing decline and extinction.

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[18] David L. Coln, "Who Will Do the Dirty Work?" Atlantic Monthly, May 1949, pages 45-48.

[19] W. Lee Hansen and David R. Witmer, "Economic Benefits of Higher Education," Universal Higher Education, Costs, Benefits, Options, ed. Logan, Wilson and Olive Mills (Washington: American Council on Education, 1971), pages 29 and 30.

[20] David R. Witmer, "Economic Benefits of College Education,"Review of Educational Research, Vol. 40, No. 4 (October, 1970), pages 511-523.

Witmer: Yes, the population in higher education is going to decline. Many institutions are going to be forced to close their doors. We have a great challenge before us. [21] Fenste macher.

Setting aside the private institutions which have a certain enviable flexibility, what is the current status of outcome assessment in public institutions? Are most colleges collecting data about the hard items, about job mobility, about the earnings of graduates? To what extent are they really getting data about the affective outcomes?

Hartnett: My impression is that they are doing and getting very little. Is anyone from NCHEMS [22] here? I'd like to hear an NCHEMS comment to these questions?

Witmer: The NCHEMS people are all still mainly looking at costs. They'll be coming over to our subject next year or the year after. They are interested in outcomes, but they have some technical work on cost exchange systems that they seem to be finishing first.

Cope: Within the next two or three years I expect to see a great deal on outcomes because of NIE's current efforts in tracking down substantial proposals to do research on student outcomes and the impact of colleges on communities.

Fenstemacker: I really don't agree with your statement that demand for higher education is declining. You might be talking about four-year, undergraduate, traditional education. We have to be alert within higher education to changing public needs for higher education. In Minnesota we are experiencing a much greater demand for off-campus, continuing education programs and for competency - based programs. The goals, objectives, and procedures of many institutions will change these very important new market demands for higher education in the future.

Witmer: You make an excellent point. I hope that you are right in implying that the new demand will be large enough to offset the decline in traditional programs.

On your previous question: All of the accrediting associations are pushing for outcome measures and, specifically, follow-up studies. The Northwest wrote criteria in its guidebook on institutional review. [23] I don't know whether any institutions out there have been reviewed under the new criteria;

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[21] William P. Fenste macker, Director of Curriculum Research, Minnesota State College System. St. Paul, Minnesota

[22] The National Center for Higher Education Management Systems, Boulder, Colorado.

[23] Northwest Commission on Higher Schools, Handbook (Seattle: Northwest Association of Secondary and Higher Schools, 1974), 80 pages.

but the criteria are there in black and white. They may require follow-up of each graduating class. The people who make the most vociferous public statement concerning the surplus of institutions and the lack of job opportunities for college graduates, seem to be the very same people who talk about other people's children. They send their own children to college; they encourage their own children to take a master's degrees' then they say "Why don't you send your sons and daughters to vocational schools?"

Questioner: The American Council on Education found that over two-thirds of the students said that the college did not relate them to the outside world or something like that. [24] What do you suppose they mean by that?

Witmer: On our campus students still use the term "relevant". They don't particularly like the disciplined effort in the classroom or in the library or in the laboratory. They would rather get credit for "real world experience" for working in downtown Chicago. But our faculty hesitates to grant credit for that toward the requirements for a degree.

Questioner: Back in the 1950s, when Paul Glickand and Herman Miller over in the Census Bureau started looking at reports of income earnings of people with different levels of education he made his statement, which went right into the bag of comments that higher educators have been using ever since, that a college degree is worth $100,000. [25] Is that still true?

Witmer: Well he didn't really mean that the present value of a college degree was $100,000 at graduation. He really meant that the lifetime earnings of a college graduate were $100,000 more than those of a high school graduate. We have had a lot of inflation since, but we have also had great economic growth. By the 1960s the gap was something in excess of $200,000. When we get the reports on 1970, and they will show that the gap is widening.

Bob, will you wind this thing up?

Cope: I feel good about this session: you have been patient; we've widened this topic far beyond what is usually for scholars sitting around in little circles. I hope you found something you can take with you. We have a substantial review of the research dealing with outcomes; those who don't have the papers already can sign the yellow pad. We have described a step by step approach to research in this field. Our discussion has touched on what kinds of measures are important, and, of course, we have looked at some of the problems in relating measures and goals. Finally, I would like to say, there is a lot of expertise sitting out here; as we go about our studies I hope we will stay in touch and use future sessions like this for frank exchange.

Witmer: Rod, do you have a final comment?

Hartnett: We started to make predictions earlier. If I were going to make predictions they would be that in the next five years we ought to and will turn more toward competency-based assessments and away from norm-referenced assessments. Though they are intertwined--not as dichotomous as some people claim--there are important differences. We will also see more movement toward group assessment and less reliance on tests and measures of individual effects.

Witmer: We have exhausted our allotted time. Thank you very much.

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[24] A. E. Bayer, J. T. Roger, and R. M. Webb, Four Years After College (Washington: American Council on Education, 1973).

[25] Paul C. Glick and Herman P. Miller, "Educational Level Potential Income," American Sociological Review, Vol. XXI (June, 1956), pages 307-312.